plane
GRUMMAN
news

Vol. 29, No. 23, Bethpage, N. Y., Dec. 22, 1970

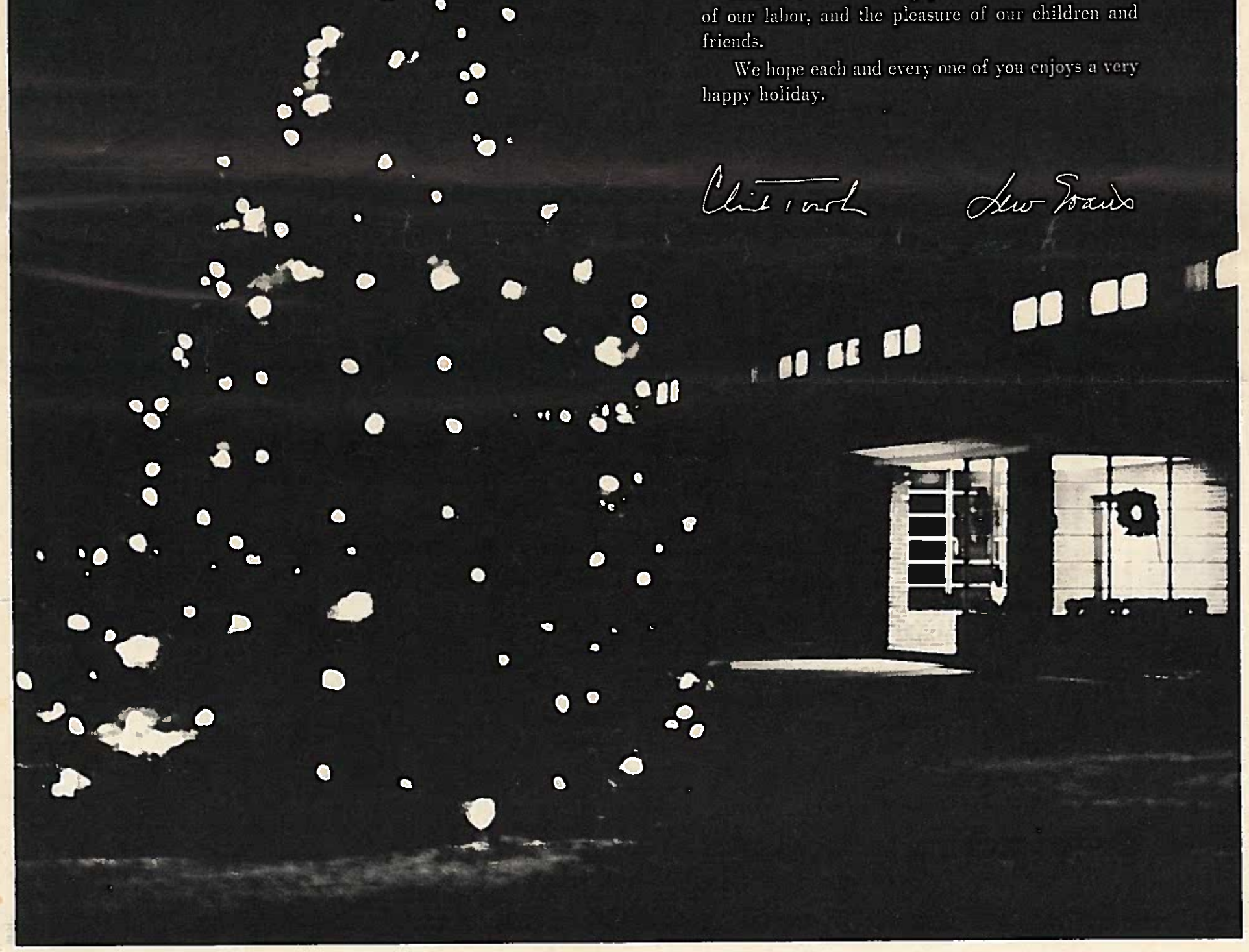
Holiday greetings

Merry Christmas and Happy New Year to all of you staunch Grummanites. Nineteen seventy was a difficult and challenging year for us all. United, we did a fine job; many, many thanks for your help.

Now is the time to enjoy our families, the fruits of our labor, and the pleasure of our children and friends.

We hope each and every one of you enjoys a very happy holiday.

Clint Towl Lew Evans



Top NASA officials tour space, production areas

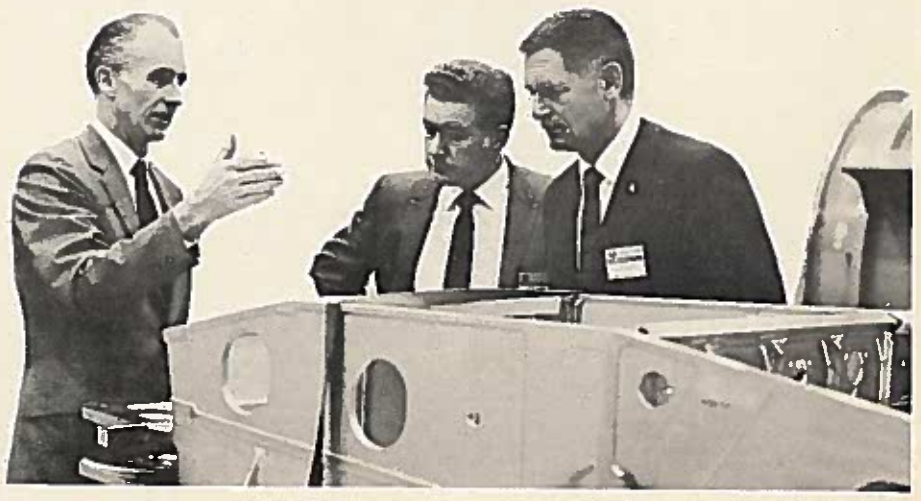
Accustomed as they are to being on view to visitors, the Electron Beam Welding men and LM manufacturing personnel had some unusually noted and knowledgeable observers this month. Top administrators of the National Aeronautics and Space Administration came to Bethpage a couple of weeks ago. On December 8, it was Dr. George Low, acting administrator of NASA. On December 9, Dr. Rocco Petrone, Apollo Program director from NASA Headquarters, arrived by plane with his staff, and in the afternoon, Dr. Kurt Debus, director of Kennedy Space Center, flew in with his staff and stayed until the following day.

The tours exposed them to the men who are making production history on the F-14 and the Lunar Modules, and let them observe advanced techniques in new weight-saving metals. The E-B Welding Facility in Plant 2 is one of the show places in the aerospace industry, and what Grumman is doing in developing titanium and boron epoxy manufacturing techniques for the F-14 is of special interest to those who do top-echelon planning in space.

Dr. Petrone, with Bill Stoney and John Potate, Engineering and Control directors, respectively, of the Apollo Program, were particularly interested in the TM-5 mockup (LM-10) and in talking to the men who have worked hard to make LM "the best." They visited Plants 25 and 5, S/CAT, and Plant 39 and saw demonstrations of the deployment of MESA (Modularized Equipment Stowage Area) and ALSEP (Apollo Lunar Surface Experiment Package).

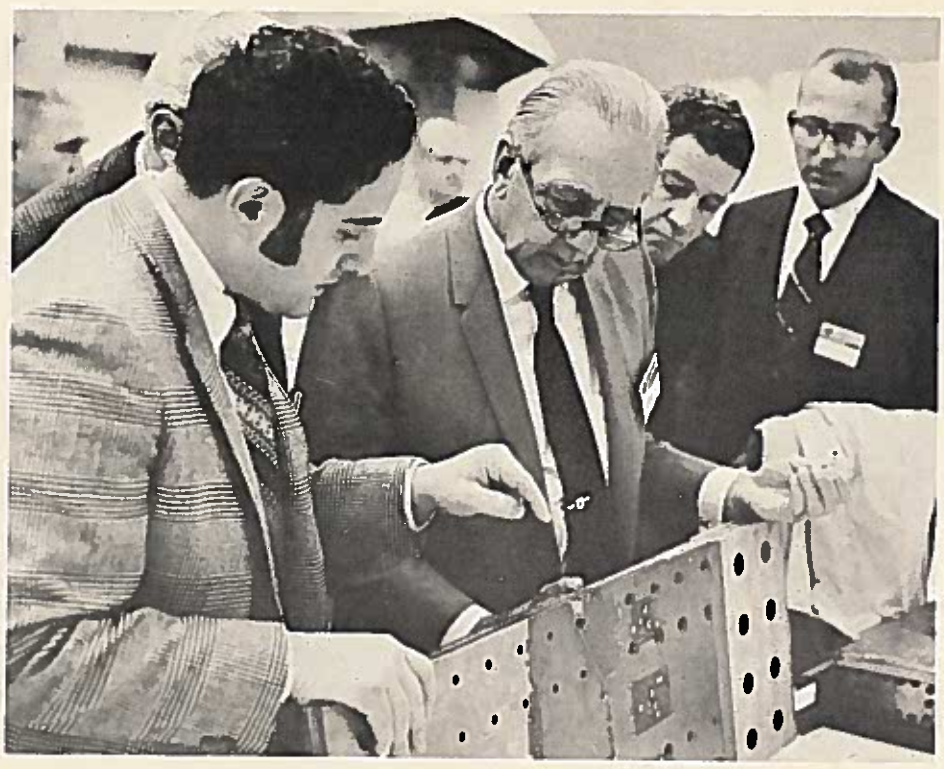
> "We've been particularly pleased to observe how some of the people and procedures developed during the Lunar Module Program have contributed to the F-14 Program. I have great hopes that the talents and experience gained in F-14 development will in turn be a substantial cornerstone for the Grumman efforts in the competition for the Space Shuttle."
>
> **Joe Gavin**
> **Senior Vice President**

Dr. Debus and his associates, Brig. Gen. Tom Morgan, USAF, manager, Apollo-Sky Lab Programs, and Miles Ross, Dr. Debus' deputy, visited Plant 2 to see the boron and titanium manufacturing, and Plants 1, 15, and 14, for F-14 developments and facilities, and then, in Plant 5, Grumman's space developments, including the mockups of the Space Shuttle and of the High Energy Astronomy Observatory (HEAO), and LM Final Assembly.



LM and F-14. Dick Maragini (L, top photo), LM engineer, and LM Consulting Pilot Jim Walker rehearse for Dr. Kurt Debus and his staff the deployment of Apollo Lunar Surface Experiment Package from TM-5 mockup in LM Final Assembly. Below, Senior Vice President Joe Gavin (L) discusses with Brig. Gen. Morgan and Dr. Debus' deputy, Miles Ross, the F-14 titanium box beam in E-B Weld area, Plant 2.

Men in white. Dr. Rocco Petrone (R) was interested observer (with Pilot Glenn Kingsley, C) of LM Modularized Equipment Stowage Area in Plant 5. Jim Walker deploys equipment from TM-5. (Photos by Fred Annette)



Exotic material. Grumman's manufacturing experience with boron composite drew penetrating questions from Dr. Kurt Debus (2nd L) during Bethpage visit. Dr. Debus is flanked by Art August, Space Shuttle technical manager, and Brig. Gen. Tom Morgan.

Guarino, King, O'Neill appointed to new corporate posts

Three men, Tom Guarino, Don King, and Dan O'Neill, have new corporate responsibilities on the E-2 and EA-6B, two aircraft that loom large in the future of Grumman.

Guarino was named program director of the E-2 a few weeks ago, and reports to Senior Vice President Bill Zarkowsky through Ross Mickey, deputy director of Aircraft Programs. King was appointed deputy director and O'Neill program manager on the EA-6B; both report to Vice President Bob Miller, EA-6B director.

Tom Guarino came to Grumman nearly 10 years ago. He was assigned initially to Advanced Systems (he helped pioneer EA-6B there when it was referred to as A-6 "Bowlegs"). Most of his stay in the Company has been on the EA-6B Program; in 1964 he was named Systems project engineer on the EA-6B, and over the next six years served as electronics project engineer, engineering manager, and, finally, program manager.

And now Guarino is assigned to the E-2, an airborne early warning and intercept control aircraft, as director. He sees the biggest challenges for himself and his E-2 Program people as maintaining a very tight milestone schedule leading to the Defense Systems Acquisition Review Council concerning final production of the E-2C, and making a good overall profit on the aircraft for the Company while providing the Navy with a high quality weapons system.

Tom points out that they hope to get a first flight on the E-2C next month. The "C" version of the Hawkeye will carry advanced AEW systems: new radar, updated computer, new navigation system, and new displays.

Guarino holds a physics degree from C. W. Post ('61), and earned a Master's in industrial management - engineering from Columbia ('63) while at Grumman. Tom is a member of the championship Grumman tennis team and works out on the squash court, too. He and his wife, Kathy, and their two children have their home in Garden City.

Tom Guarino

Don King

Dan O'Neill

Test pilot

Over the past decade, Don King has combined a background in electrical engineering and training as test pilot to contribute heavily to a number of programs at Grumman, especially the EA-6A and EA-6B aircraft.

Following his graduation from Iowa State College in 1954 with a degree in electrical engineering, Don became a Navy pilot, worked a year with another engineering firm, and, in 1959, came to work at Grumman as a systems engineer on the A-6A.

King has flown for the Company since 1963. A graduate of the U.S. Naval Test Pilot School in 1965, he has logged more than 3,000 flight hours (2,500 in jets). As a test pilot, he has been involved not only in structural evaluation and demonstrations, but in ECM and attack weapon system design, development, and evaluation.

Over the past couple of years, Don has been EA-6A/EA-6B project pilot, with management responsibility for flight evaluation teams and Navy Bureau of Inspection and Survey Trials for the "B", piloted the first EA-6A and EA-6B, and has been heavily involved in evaluation and analysis of the EA-6B navigation system. Earlier he had been A-6A project pilot.

Now he moves into another type of assignment on the EA-6B Program, one that he sees as being primarily "desk-bound," except for occasional flights to keep his proficiency up.

He and Bob Miller are anticipating the carrier qualification trials for the EA-6B, scheduled for early in '71.

Don, his wife, Jeanne, and their three children call Wading River their home town now.

Started in shop

Dan O'Neill's middle name isn't "perseverance" but it might be. Dan has been with the Company since 1952—he came here after four years in the Air Force—starting as an instrumentation technician. A year later he enrolled in the New York University evening program. In 1959, Dan graduated with an electrical engineering degree, and on hand to congratulate him were his wife, Hertha, and their four children (they now have six).

On the job, after a year in instrumentation where he worked on S-2s, O'Neill became an instructor on electrical power systems in the training department, and, in 1955, moved into avionics engineering to work on the F-11 and F-9 series aircraft.

After assignments on the E-2 and A-6 (the latter as support program manager), Dan joined the EA-6B Program in 1965 as Support program manager, a post he held until appointed EA-6B Program manager. Dan and his family live in Stony Brook.

Other posts

Others named to the EA-6B are:

As assistant program managers—John Herman (Fleet Introduction); Ed Rose (Production); Tom Street (Development).

Al Gurkewitz was named Engineering manager; Bob Davison, Support manager; and Lew Scheuer, Subcontracts manager. All report to O'Neill.

Gifts for vets. Pretty Betty Kaczetow seems to be having trouble finding room for this final gift in this array contributed at Plant 25 for hospitalized veterans. Contingent from Navy Office and Grumman visited veterans' hospital last week to help distribute gifts for Christmas. (Photo by Larry Van Wallendael)

Please . . .

From Francis B. Looney, commissioner of police for Nassau County, comes an urgent appeal to cut down on holiday accidents. He means business. Precinct commanders will be assigned to visit employers throughout the county, urging preventive measures to insure safe departure of employees from their office festivities.

"We suggest," he says, "that employers organize car pools operated by non-drinking members of their staff, to transport fellow employees home after holiday office parties." To put teeth into the effort and to get revelers home safely, over 500 Nassau County Police vehicles will be on patrol.

See wide potential in military, commercial test service market

A "Jolly Green Giant" Sikorsky CH53-D helicopter seen flying around the Calverton Flight Test Center recently carrying a four-ton concrete block, was trying to make "noise." According to Tony Caserta, Grumman Test Services manager, the helicopter, loaded to maximum gross weight, was acting as a noise source in a one-day joint Grumman-Sikorsky acoustic survey. Grumman test engineers monitored acoustic tape recorders at three key working areas within the Calverton facility, while Sikorsky engineers monitored similar tape recorders located outside the fence. They were trying to determine whether the sounds of large helicopters during development tests would exceed acceptable noise levels in plant working areas and in the surrounding neighborhood.

"This program came about as a result of the marketing efforts initiated by FAD," comments Dick Mazourek, assistant director of Flight Acceptance Department. "We have been attempting to capitalize on the testing expertise and unique test facilities that Grumman's Flight Acceptance Department has developed over the last two decades. These test services, which include test management, test planning, instrumentation, data collection and data analysis services, are being offered to the Army, Navy, Air Force, and civilian agencies, as well as to private companies such as Sikorsky, by a Test Services Group consisting of Tony Caserta, Bill Dehner, and Ray Sutton."

Noise check. 'Jolly Green Giant' hovers patiently while crewman connects sling to four-ton cement block at Calverton facility. Helicopter was participating in acoustic survey, which was conducted by Grumman-Sikorsky. Heading that trial was Rocco Briguglio (L inset) of Sikorsky, and Tony Caserta, Grumman Test Services manager. (Photo by Gerry Costello)

Reallocation of funds

Due to the de-escalation of the Vietnam war, says Mazourek, the military now is looking to get many advanced weapons-development programs, which were deferred during the Vietnam war buildup, moving again. Deputy Secretary of Defense David Package recently stated in the Wall Street Journal that, "We've got some catching up to do." Large sums of research and development dollars to test exotic automated battlefield devices, new electro-optical reconnaissance sensors and laser range finders are envisioned by Pentagon officials, says Mazourek, and one way for Grumman to keep abreast of new developments is to provide the test services required by these research, development, test, and evaluation (RDT&E) programs.

Vying with the military for post Vietnam funds are the civilian agencies looking for peace dividends, points out Caserta. Test services are also required by these civilian agencies. As an example, the United States Department of Transportation (DOT), with an annual research and development budget of $180 million has started construction of a new high-speed ground transportation Test Center at Pueblo, Colo., similar to the Navy's Patuxent Test Center. The goal of this test center is to tackle some of the nation's critical civilian transportation problems and to provide the nation with a balanced transportation network that is capable of handling double the transportation volume in the next 20 years.

Test service support

The wide range of new vehicles and systems that will be developed and tested at Pueblo will require substantial contracted test services support," states Caserta. "The same know-how and test techniques that Grumman provided to NASA White Sands and other NASA Test Centers, and which helped NASA safely land men on the moon, can be utilized to improve the movement of people and goods here on land." Back at the Calverton facilities, the $11 million Automated Telemetry Station (ATS), which is expected to slash development test time on the F-14 in half, could be utilized by DOT to cut intra-urban V/STOL aircraft development test time and costs by substantial amounts. The "Jolly Green Giant" was a visible forerunner of these anticipated ground and air test services.

Results of the "Jolly Green Giant" acoustic survey at Calverton have shown that acceptable sound levels can be maintained for daytime helicopter test operations at Calverton, says Caserta. In the foreseeable future are both tethered and free-flight helicopter tests. Long range plans also include possible installation at Calverton of one or more whirl stands to be used for dynamic testing of helicopter blades. "As a result of all this," Caserta says, "Calverton will see many unique vehicles and systems undergoing a wide range of test experiments."

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Published twice a month for the employees of Grumman Aerospace Corporation, Bethpage, N. Y. 11714, as a function of the Public Affairs Dept., Vice President J. B. Rettaliata, director.

Editor
Brian Masterson

Associate Editors
Claire Imrie
Al Wehren

Ads, Distribution
Dorothy Zeeb

Official Photographers
Presentations Services

Telephone
Plane News: 3293
Plane News from outside line:
LR 5-3293

Year-end work schedule

- All plants will be closed on Christmas Day, Friday, December 25, 1970, and on New Year's Day, Friday, January 1, 1971. Everyone actively employed will be paid for these two days.

- Christmas bonus checks and turkeys will be distributed to the **day shift** personnel in all plants on Thursday, December 24, 1970, beginning at the regularly scheduled start time in effect at each plant.

- Christmas bonus checks and turkeys will be distributed to the **night shift** personnel at the conclusion of the Wednesday (December 23) night shift. All night shift personnel shall report to their regular place of work at 5:30 p.m. on Wednesday, December 23, 1970, regardless of the time they would otherwise normally report to work.

- There will be no **night shift** on Thursday, December 31, 1970. In order to compensate for this loss of production, all night shift personnel will work two extra hours on Monday, Tuesday, and Wednesday, December 28th, 29th, and 30th, and they will be paid for these six hours at the appropriate overtime rate.

The Age of Aquarius—high drama, triumph, then retrenchment

It's been an odd year, one of spectacular successes, one of promise for the future . . . and one of decreased employment.

It is a time then to retain perspective. While this may not be the "best of all possible worlds," as the fictional Doctor Pangloss saw it, it is far from the worst — very, very far from the worst. For the Company has firm and trusted foundations on which substantial achievement has been demonstrated.

And it was time for an anniversary—Grumman's 40th year. It started as an acknowledged gamble when six men, just a couple of months after the Great Depression of '29, pooled their talents and convictions and set up shop in a garage in Baldwin. Their first efforts were doing repair work for the Loening Aeronautical Engineering Corp. and building (and selling to the Navy) an amphibian float.

From that initial tie came production of the FF-1 for the Navy . . . followed by such aircraft as SF-1 Scout, Duck, Goose, Martlet, and the legendary Wildcats and Hellcats as World War II struck the nation. And when that ended, there was a pause for reorienting Grumman business . . . and then came diversification and the impact of an exploding technology that is beyond precise measure. And by all signs, this explosion is in its very infancy. We have but lit a long, long fuse. . . .

Strength and creativity

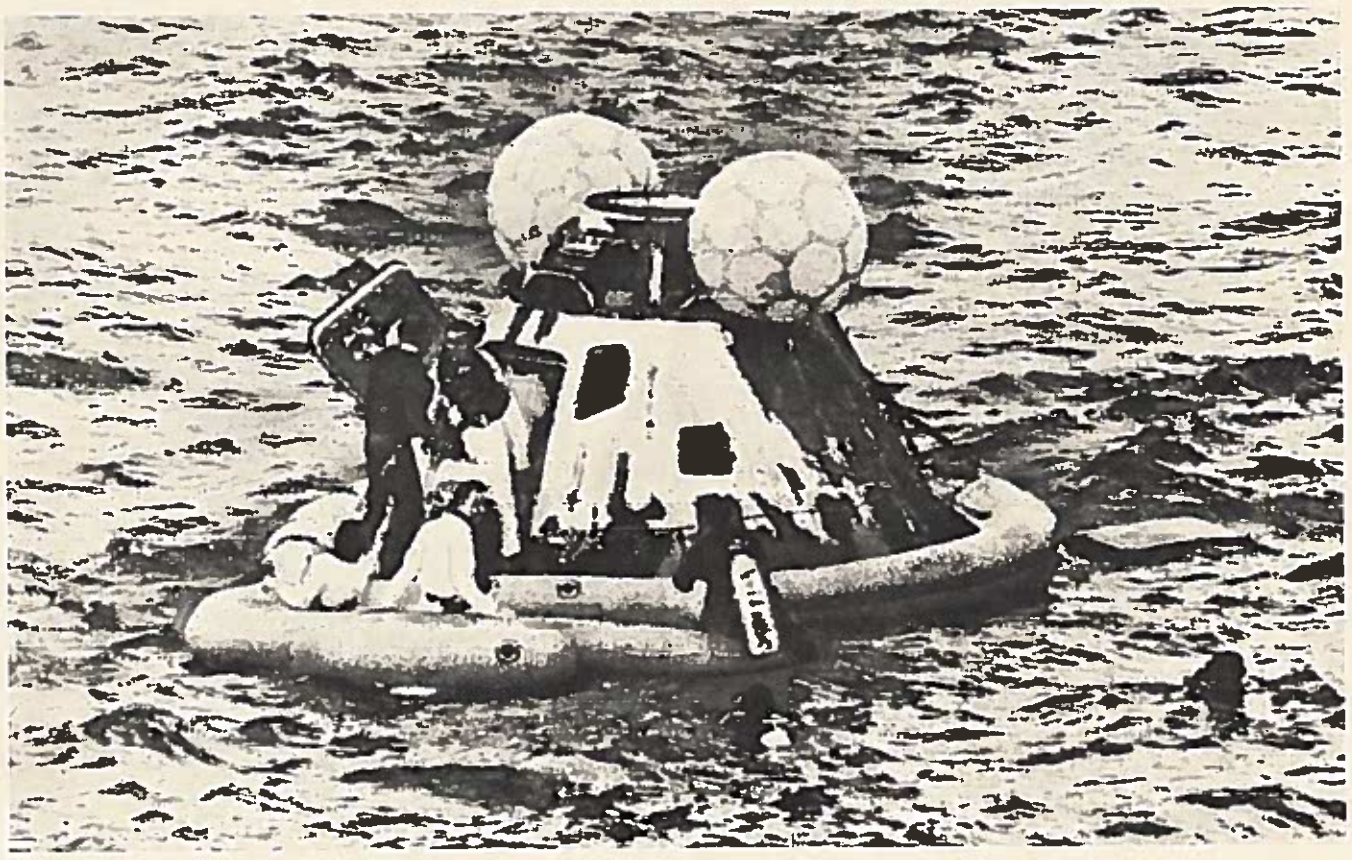
Witness, for example, the F-14, the Lunar Module, the Orbiting Astronomical Observatory (OAO), the Space Shuttle bid, the EA-6B and the A-6E, the new venture in Singapore under the aegis of Grumman International, Ecosystems, the TACRV proposal, and so on. They accent the strength and creativity of Grumman and its skilled people.

A singular proof of this is that Grumman has stood steadier than any of the nation's major aerospace companies.

We have right now the most exciting and important aircraft in the country, the F-14 air superiority fighter. Planned from the start as a three-phase program—fast introduction to the Fleet, lighter and improved engines, and then richly sophisticated avionics—the F-14 is the weapons system for the '70s and '80s. When it goes to the Fleet, it will: out dog-fight any aircraft in the world; carry the newest missiles and armament; have extraordinary long-loiter capability for Fleet protection; possess all-weather strike potential; mute the threat of Soviet air power—which has been gaining in strength since 1954, when the F-4 Phantom got flying.

The Company saw the need for this new fighter long ago. And it hard-headedly forced itself to "see" not only the vague outlines of the need but to analyze the need in depth, and then to formulate explicit design concepts and fabrication methods. And through all this were the construction and test mandates: to build the finest aircraft the

(Continued on pages 6 - 7)



'Deepest thanks'

The Apollo 13 crew wants to express to the entire Grumman engineering and manufacturing team our deepest thanks for building a most outstanding spacecraft. Aquarius performed beyond expectations in providing our only means of returning home.

Our highest praise for the continuous efforts of all the Grumman employees in the making of LM-7.

Jim Lovell
Jack Swigert
Fred Haise

THIS IS THE YEAR THAT WAS—

(Continued from page 5)

Navy has ever had, to do it within cost, and to deliver it to the Fleet in a shorter time than ever had been done before.

All of these targets are being met.

They're being met in the same sure-handed and almost incredible manner that characterized the Apollo Lunar Module journeys. Some say the height —emotionally and scientifically—came with Neil Armstrong's first-in-the-world moon walk. It was then that we could look in another direction, and invert Thomas Hardy's lines:

"What have you looked at, Moon,
In your time,
Now long past your prime?"

Perhaps that was the zenith. But pause . . . and reflect . . . on the utterly fantastic space odyssey of the "lifeboat" Aquarius. You know the story; something went wrong, and LM Aquarius was the only route back home to earth. Astronauts Jim Lovell Jr., Fred Haise Jr., and Jack Swigert Jr. made it back to splashdown in the pacific Pacific. Perhaps it was Haise who said it best: "Procedures that usually took months were arrived at in a matter of hours. After the Service Module went, we were very dependent on what we had left, which was the LM and the Command Module. Obviously, you all did a tremendous job. The LM was perfect, and was performing twice the requirements of any previous module."

Budget slash

The Astronauts rode LM-7 Aquarius almost all the way home, and ended with a bullseye splashdown.

And what irony there is in all that! The "perfect" LM, and the Apollo success, were followed by sharp budgetary cutbacks. Manned missions to the moon are being phased out. LM-12 will be delivered to the Kennedy Space Center, Florida, in June; that closes out the LM Program in Grumman.

Last year, in the well-worn phrase, "the handwriting was on the wall"—for LM, the Apollo Program, and the aircraft industry. Grumman was faced with a lack of work in-house. A reduction-in-force (RIF) occurred, from about 31,700 to roughly 26,500. As was pointed out just a month ago, the RIF "was not made because of poor employee performance. If business conditions improve, many of them will be recalled."

In the meantime, the Company fought back with a series of promising proposals, among them a space shuttle, TACRV (tracked air-cushion research vehicle), and HEAO (High Energy Astronomy Observatory). The Grumman/Boeing Shuttle Team has made two recommendations to NASA. First, a fully reusable orbiter the size of a 707 to ride "piggy-back" into orbit on a fully reusable booster the size of a 747. An alternative is use of a reusable orbiter (like the "piggy-back") on an available Saturn 1C Boeing booster for use in early flight until a more advanced booster is developed in a "non-crash" program.

Future potential

TACRV work is proceeding under a $3 million contract from the U. S. Department of Transportation. Dubbed a fast, safe people-mover, TACRV is to zip along on a thin layer of air (the cushion) at a speed of 300 miles per hour. A test track is being built in Colorado, and there is a strong feeling that the vehicle has international potential.

HEAO is a "no frills" spacecraft some 30 feet long and 10 feet in diameter designed to carry scientific instruments for studying the sources of cosmic, Gamma, and X-rays beyond the obscuring effects of the earth's atmosphere. Grumman is associated with the Bendix Corporation Navigation and Control Division and Hughes Aircraft Company. A follow-on contract for two HEAO spacecraft is expected; first launch is tentatively set for mid-1974.

All this, by the way, in no way clashes with Grumman's continuing OAO work —which remains active.

Active, too, are other programs—the KA-6D tanker now in the Stuart, Florida, facility; the newest member of the Intruder family, the A-6E, suited with new radar capable of doing the detection, tracking, and terrain-clearance functions simultaneously, the E-2C, successor to earlier Hawkeyes; and, in Savannah, Georgia, on-going work on Grumman's Gulfstream II.

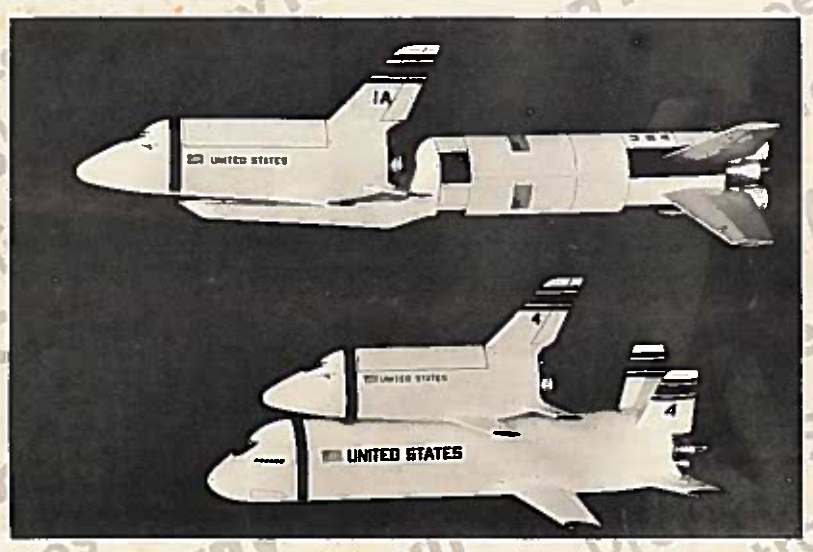
Nor is that all. Ecosystems is flying survey and environmental flights; the Company's in space medicine with an Extra-Systemic Organ Transporter and a Mobile Intensive Care Operating Table—both spinoffs of the LM Program; Grumman International, Inc., has formed a wholly owned foreign marketing subsidiary. Grumman Pacific (PTE), Ltd., which is based in the Republic of Singapore.

There's more, and there will be still more as Grumman continues to probe new markets and new technologies in a quest that could be without end.

'The greatest thrill in life is . . . tomorrow'

The first forty: 1930-1970

F-14: talent, technology and effort



Space Shuttle

am readying Apollo 13 ' lunar landing mission

OAO

See international potential for tracked air cushion vehicles

Betterino, Nelson hit new highs in warm-up for varsity trials

With the varsity bowling rolloffs just around the holiday corner, several kegling hot shots spent the last couple of weeks getting ready for the head-to-head trials with some eye-opening tallies. Hottest hands were displayed by Ralph Nelson and John Betterino. Nelson charged into the Outpost record book with a hefty 659 after lines of 207, 210, and 242, the last one a record-tying effort. John slipped into the lead for Masters' series laurels with 863 (just three sticks over Fred Skirde's former mark) as he put together games of 248, 218, and 208 in a four-game set.

Following on Betterino's heels in Masters' competition were Ray Zeller, 257-213-211-846, and Don Eivers, 236-807, while the Whoizzees clicked off a 2355 series mark, and the G.I.s weren't suffering as they collaborated for a game standard of 668. . . . Outpost headliners with Nelson were Ken Carman, 222-602, and Frank Powers, 218-585, with the Deuces picking up top team series of 2509. Earlier, Tony Bezas's 229-563 and Nelson's 201-552 topped the pin parade. . . . George Daly ran off games of 224 and 223 and finished with 623 to take over series honors in Woodbury Mixed play, with Betsy Reuper's 207 and Donna Lawrow's 541 sharing the women's laurels.

Head Classic leader

Mel Head shot down both of Nick Malandro's Classic league record in a recent session with 255-652, and picked up a Thanksgiving turkey in the bargain during the GAA sweeps. Others in the spotlight were Henry Striegl, 232-602, Phil Piacentini, 200-581, and Bob MacLeod, 223-576. . . . Joe Guissari racked up 620 in Monday Mixed play, with Sid Weihs' 560, Alan Greenberg's 536, Donna Lawrow's 505, and Ronda Hoffman's 483 among the leaders. . . . Punching out a 619 with 226 and 225 boosters, Dan Aquilino finished atop the Aerospace loop by a wide margin. Ed Lomot closed with 225-562 and Dick Dickerson with 562.

Frank Link must have known it was coming. George Moritz had a run at his 626 Gray league series record with 614 on 221 and 200 a couple of weeks ago, but Bob Harvey came back the next round to zero in on that mark as he posted 640 on games of 217, 216, and 207. Harvey also pushed the Kingpins to a 2728 series mark, while another Gray veteran, Armand Aronne, posted 230 to accept high game bouquets. . . . I. C. Demons sounds like a good reason to join AA. Demon George Katz, gave fits to the Rocket loop recently as he clicked off a record 230 in his 599 to propel his team to a shutout win over the Hemps, a slim lead in the standings, and a new high series total of 2243. Earlier, Dom Bellow's 212-558 was outstanding.

Blowin' his horn

Steve Cominski has had things pretty much his own way in the Babylon Mixed league—he owns high game and series of 248-682—but judging by southpaw Ed Gabriel's performance a few weeks ago, he may be in for a battle before long. Gabriel parlayed 224, 218, and 205 games into a strong 647 to far outdistance T. C. McClee's 222-559. . . . Hank Kwiatkowski's 232, Harry Haase's 222, and Judge Locke's 200 and 216 (sorry, no series total submitted) brightened action in the Night Owl circuit. . . . Gene Burgess tallied 200-585 and Dave Struller hit 540, while Joan Burgess finished with 488 and Val Lindstrom 484 in the Patchogue Mixed league.

Mike Mustapich and Ken Warta ended up with 608 last week in the Classified loop. Mike used 209 and 208 games to get there, while Ken threw 217 and 215—high game, however, went to Carl Catalano with 230. . . . Ole Kenny John Smith flipped a 221 in Trader play, but Dick Connelly's 602, with 200 and 203 assists, made the big noise at Oscar's. . . . Among the other high scorers were: Black league—Hank Froning, 226-579; Randy Miller, 219-209-592; and John Betterino, 201-576; Red league — Ray Munz, 589; John Cabbe, 213-569; Brown league — Phil Lipari, 208-581; Al Cilento, 204-546.

In late reports: Paul Waisanen of Red League's Lucky Strikes built up strikes in 224-199-624 run in an unsuccessful challenge of George Eyring's season league record of 267. The following week the Thousand Club's Herb Pirkl limbered his arm and took a whack at it, but his was considerably shy. So while Eyring reigns, the big change in the two week's alley combat was in the league standings as the Unknowns took over second spot from the Thousand Club.

The Sparkplugs and Sandbaggers keep on running one-two but the hottest guy in the league is Dudonis, of the Mustangs, whose 225-206-623 dominated Classified play in the past two weeks.

Corrigan high

Atop the standings in the Grumman Aerospace league is a team dandily dubbed the Foul Four. Individual leaders were Dick Corrigan of the Idiots (It's great that they're not sensitive), who rolled 224, 21 pins lighter than his own league record of 245. The best that Joe Aquilino of the Cats could do in that league in the following week was 220. There wasn't a 600er in the lot. High series in the league (629) remains the personal possession of Ed Lomot, one of the Foul Four.

Bob Caminiti appears to be one of the better Outpost pin-knockers, though Bill Gallagher is scrapping all the way. Caminiti came in second with a 254-613 to Gallagher's 221-225-647, but the tables were turned a week later as Caminiti posted a 254 single. This is a continuing contest well worth keeping both eyes on. . . . Nite Owls hootin' it up in the 200s are Hank Kwiatkowski, 225 (609), Ernie Jenkins, 223, George Zajac, 213, Dave Lamb, 211, Walt Cooper, 211, Howie Strohl, 208, Ed Truglio, 206, and Judge Locke, 204. High game so far this season belongs to Laurino, who banged out a 266—just a single pin better than Dunkley. Neither guy is on the first-place team, the Spoilers.

Phil Lipari had a sizzling night in Brown League action stringing out 211-207-204 (he tires in the stretch) to score 622. That gave the league leading Road Runners a boost—as though they needed it! Lipari's hot one set a league record for individual high series, to go with his individual high game mark of 257. . . . Moving from Brown to Black, that radiation man, Lee Maggio, shows what that big frame and smooth follow-through can do: 209-568. Some other nice ones—John Betterino's 235, Katalo's 210, and Joe Russo's 201. . . . Weathers and McGrellis led the way in the Woodbury Mixed with 203 each, although Weathers came out on top in the set with a 502. Herb Pirkl mowed down the pins to grab a 535 high. On the femme side, Donna Lawrow was in high single (207) and high series (609), missing her own records of 242 and 641 but suffering no anguish. . . . No records were set in the Trader league but Bob Washington's 228 and Al Stevens' 595 were more than respectable. And Frank Nelson hummed in with 222-590.

Ski weekend

Don't forget that BIG ski weekend January 29-31 at Sheraton-Wayfarer Inn at Manchester, N. H.

Prices are $49.75 for four-to-a-room accommodations, $52.75 for three-per-room, $57.75 for doubles. Skis, buckle boots and step-in bindings will be supplied at the site. If you bring your own equipment, shave $5 off the above prices.

Accommodations can be guaranteed only to the first 80 people, so, if you'd like to go, call Chet Baumgartner of GAA on Ext. 2133.

Call top keglers

Want to try for a spot on one of the three Company bowling teams? Better move fast!

Entry averages for men, computed through the week of December 14-20, for women, the week of January 4-10. Averages will be computed for Nite Owl the week of February 8-14.

All candidates will roll at Mid Isle Lanes, Hempstead. The men start it off January 16 and roll through February 13. They'll roll six games a night for the first four rounds and finish the 27-game effort with a three-game session on the final night.

The girls will roll 18 games during tryouts. Competition starts January 23 and winds up February 20. The Nite Owl open and end dates are March 1 and March 22.

In addition, two varsity specials are on tap: a three-game, one-night Jamboree to be hosted by Sperry February 27, and a Pan Am mixed tournament featuring the top two men and women from the roll-off squads on April 3.

Tiedemann duo 'shoe titlists

It may not be quite as fast as hockey, or as bone-crunching exciting as football, but there's a hell of a lot of easy fun in trying to get that horseshoe to wrap itself around that metal post in the ground. Ask the pitchers at 11, 11A, and 16 where the pits were dusty with action as the singles and doubles horseshoe tourneys took place. Tension extraordinaire!

There was a 23-man entry list in the singles, and after the plops and clanks got narrowed down there was a foursome in contention, Stan Popelaski vs John Pawlitz and Joe Cook vs Jim King. As the nail-biting multitude watched, Cook took a 16-23 beating and then, grim and determined, battled back to conquer King 23-17 and 21-5. Popelaski caught Pawlitz in a slump and battered him 21-0 and 24-4. And then came the big one: A three-straight surpriser by Popelaski over Cook, 22-19, 23-6, and 25-4. Back to the pits!

The doubles see-sawed. The Bob Safar-Fred Roth duo did battle with the team of Richie Hidon and Bruce Maurice, and when it was all over Safar and Roth were the demolishers, 23-20 and 23-19. Tougher than that were the three contests featuring King-Tiedemann vs Hidon-Maurice. K & T, both in the losers's bracket, took the match, 21-17, 16-21, 24-19. And when King and Tiederman locked shoes with Safar and Roth, the dust did fly! But not for long. From out of the throats of the Luddy Street horseshoers came the cry: 21-10 and 23-14, all hail—King and Tiedemann!

Still winning

Bill Ziegler goes on and on . . . and unlike "old soldiers," he doesn't fade away, either. At one time Bill confined his athletic activities to softball during lunchtime; now he's concentrating on horseshoes, and doing pretty well, too. Recently, Bill captured the singles championship at Plant 33, then teamed with Bill Landman to wrap up the doubles title also.

In a four-match sweep of singles play, Bill clipped Fred Knieps, 23-9, 24-7, then defeated George Bennett, 24-20, 20-6; John Ceely, 21-12, 22-6; and, in the finals, Ed Kurtz, 21-0, 21-12, 14-23, 21-7.

Ziegler and Landman made short work of their doubles competition. Losing only one game on the way to their title, Ziegler and Landman scored a 23-11, 21-5 win over Vic Milligan and Mike Waglione, and followed that with victories over Bob Wood and Ron Klewicki, 21-0, 26-10; and George Bennett and John Ceely, 22-11, 21-9, 14-21, 21-4.

Volley ball champs

Canopy finished first by a wide margin in the Wyandanch volleyball league, and proved its supremacy in the Plant 27 net league by bopping the Flyers in three straight—15-12, 15-13, 15-13—to take the championship playoff round.

The Flyers, who finished second, eliminated the third-place Midgets 15-11, 15-12 in the semi-finals.

R. G. Milko
Instr. Test

C. Famera
Parts Control

C. H. Butzbach
Prototype

R. D. Payntar
Controls

M. W. Ferguson
St. Pts. Assem.

H. I. Heide
Propul. Test

C. E. Russell
Qual. Engg.

G. Tonnesen
Wing Sub.

E. Sunderland
Machine Op.

Twenty-six marking silver anniversaries with Grumman

George Burkhardt, senior tool designer in T/M Engineering, Plant 2, is one of the "select" to complete 40 years of service in Grumman's 40th anniversary year. His Permanent Number is 18, and his anniversary date, December 4, 1930. He was with Grumman in Baldwin, Valley Stream, and Farmingdale before the Company moved, in 1937, to Bethpage.

Two women and 11 men reach the 30 year mark this month:

PLANT 2: Edward Grafenstein, Router & Shear; Edward N. Reusch, Press; Vincent Caruso, Steel Parts Assembly.

PLANT 3: Frank C. Cava, Honeycomb Layup & Procedure.

PLANT 4: Edward F. Meaney, Support Drafting.

PLANT 5: Edith A. Farrell, Paymaster.

PLANT 17: Donald H. Hartmann, Shipping Inspection.

PLANT 25: Philip H. Packard, Material - Space Program.

PLANT 30: Florence A. Stephenson, Product Support Secretarial Services.

PLANT 34: Christian H. Schumacher, Product Support Technical Services.

PLANT 35: Horace L. Mais, Contour Development.

PLANT 39: Leonard R. Luke, S/CAT Management & Staff.

PLANT 89: Henry A. Smith, Product Support A/C Systems Service.

PLANT 30: Frank E. Young, director, Computer Operations (GDS).

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Twenty-six men are reaching Silver Anniversary status in December:

PLANT 1: Rudolph G. Milko, Instrument Test; Charles Famera Jr., Production Control - Parts Control.

PLANT 2: Charles H. Butzbach Jr., Prototype; Rodney D. Payntar, Controls; Martin W. Ferguson, Steel Parts Assembly; Henry I. Heide, Propulsion Component Test; Joseph G. Maliszewski, Inspection - Tooling; Curtiss E. Russell, Quality Control - Quality Engineering.

PLANT 3: Godfrey Tonnesen, Wing Sub-Assembly; Ernest C. Sunderland, Machine Operation - Technical Service; Frank Sprague, Intra-Plant Transportation.

PLANT 5: Anthony J. Schumacher, Industrial Engineering - Space.

PLANT 6: James W. Van Essendelft, Final Assembly; Henry Ehlers, Pre-Flight; Stephen C. Koerner, T/M Method Engineering - Aircraft Production Program.

PLANT 24: James J. Canniff, Production Control - Parts - Control.

PLANT 25: Michael R. Bozza, Material Project Management.

PLANT 27: William C. Luke, Center Section - Sub-Assembly; Eugene Earley Jr., Fuselage Joining; Kenneth T. Surprise, Fuselage Joining.

PLANT 36: Paul De Stefano, Surfaces and Assembly; Thomas Mirabella, Inspection - Mechanical.

PLANT 37: John F. Pietrofesa, Router & Shear.

PLANT 55: William O. Pauly, Major Assemblies.

PLANT 77: Anthony C. Reheiser, Fuselage Assembly; Charles H. Harratt, Final Assembly.

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Eleven are celebrating 20 years with Grumman:

PLANT 1: Samuel Coles, Fuselage Sub-Assembly.

PLANT 2: Samuel Levy Jr., Drop Hammer; Edward J. Deckman, Parts Paint; George Stajk, Tool Fabrication - Templates; Edward Macy, Facilities Maintenance; George M. Albiston, Mechanical Inspection.

PLANT 5: Alfred Anuszewski, Machine Shop; Arthur Froelich, Space Management & Staff.

PLANT 25: John Mockovciak Jr., Advanced Space Systems.

PLANT 34: Robert E. Coutieri, Contracts A/C.

PLANT 41: Roger B. Conklin, Material - Space Program.

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One women and 23 men celebrate 15 years with Grumman this month:

PLANT 1: Robert J. Coletti, Structural Designers.

PLANT 2: Harold J. Sieranski, Controls; Ernest J. Dau, Tool Fabrication - Tool & Die.

PLANT 4: Leonard L. Auchenbaugh, Final Assembly; Peter Balasko, Production Control - Records and Release.

PLANT 6: Donald F. Martin, Power Plant; Nicholas J. Dono, Avionics Inst.; William Palmer, Measurement Standards Lab.

PLANT 7: Vernon C. Guild, Flight Development/ Operations.

PLANT 10: Gerard A. Beaudoin Jr., Quality Control Lab.

PLANT 11: Frank F. DiFranco, Tool Fab - Plaster Tooling.

PLANT 19: Joseph A. Crabbe, GDS Real Time System Program.

PLANT 27: Donald B. O'Brien, Fuselage Joining.

PLANT 28: Wallace W. Brown, Personnel Administration.

PLANT 30: Mildred P. Connors, Manufacturing Tool & Methods Engineering Management.

PLANT 34: Roy M. Dowling, Plant Protection.

PLANT 35: Bertram H. Dawkins Jr., Alighting Gear; Rudolph Adornato; Trajectory Analysts; John W. Brook, Fluid Mechanics.

PLANT 83: Edward T. Barron, KSC Base Management; Dominick J. Pastore, KSC Quality Control; Kenneth R. Crow, KSC Manufacturing Shops.

PLANT 84: Stephen Reichardt and Melroy C. Wypler, GSFC Space Test & Operations.

F. Sprague
Transportation

A. J. Schumacher
Ind. Engg.

J. Van Essendelft
Final Assem.

S. C. Koerner
T/M Engg.

J. J. Canniff
Parts Control

M. R. Bozza
Material Mgt.

W. C. Luke
Ctr. Sec. Sub.

E. Earley
Fuse. Joining

K. T. Surprise
Fuse. Join.

P. De Stefano
Surfs. & Assem.

T. Mirabella
Inspection

J. F. Pietrofesa
Router & Shear

W. O. Pauly
Major Assem.

A. C. Reheiser
Fuse. Assem.

Final Assem.
C. H. Harratt

Award for POW effort

A lot of the action in the POW-MIA drive is being generated in the south. A couple wives of Grummanites —Carol Taylor and Annamarie Nizol—are heavily involved, and Mrs. Taylor was presented with the Award of Merit by a Veterans of Foreign Wars post in Houston for her effort in helping to get signatures on a petition in behalf of American POWs. The VFW post sent the petition to Paris, where U.S.-North Vietnam peace talks are going on.

Travelers reps offer counseling

The Travelers, one of the largest multi-line insurance firms in the country, have trained all-lines representatives located in various plants who are available to all employees for private, personal counseling on their insurance needs.

Since the Grumman Financial Services Plan was introduced a little more than 30 percent of Grumman employees have bought some form of insurance—life, homeowners, car, or a combination—through the Plan. Rates are often lower than elsewhere, and the insurance can be purchased through payroll deduction.

If you want to find out about its possible benefit to you, you can set up an appointment with the Travelers representative who services your plant. He will answer your questions without obligation.

Plants	Counselors	Extension		Schedule
1 - 41	Allan King	86289	(1)	Mon., Tues., Thurs., Fri.
2	Bob Nickola	86933	(2)	Mon. through Fri.
3 - 10 - 17 - 18 - 24	Ken Stiehler	84266	(3)	Mon. through Fri.
4	Tom Edwards	84842	(4)	Fri. (Bal. of week, Ext. 86739)
5 - 13 - 23	Peter Yahr	84963	(5)	Mon. through Fri.
6 - 7 - 8 - 32	Tom Edwards	57-641	(6)	Mon. - Thurs.
		57-152	(32)	Sag Harbor
11 - 12 - 15 -		86298	(15)	Mon. through Fri.
16 - 20 - 21 - 28 - 37 - 38	John Vanags			
25 - 39	Paul Vandenberg	84996	(25)	Mon., Wed., Fri.
27	Paul Vandenberg	86349	(27)	Tues., Thurs.
33	Allan King	86322	(33)	Wed. (Bal. of week, Ext. 86754)
30 - 36	Warren Umbach	86865	(30)	Mon., Tues., Wed., Fri.
		86311	(36)	Thurs.
34	Dick Bafutto	86754	(34)	Mon. through Fri.
35 - 14 - 26 - 31	Ed Reynolds	86739	(35)	Mon. through Fri.

CALENDAR of events

Notice of events for period of Jan. 15 - 29 should reach Plane News by **Tues., Jan. 5.**

Amateur Radio Club: Wed., Jan. 20, 5 p.m., at the WA2LQO shack on the roof of Plt. 5, bus. & oper. mtg. Emmett Goodman, Ext. 87125.

Amer. Inst. of Aero. & Astro.: Tues., Jan. 19, 6 p.m., Four Seasons Country Club, Woodbury, dinner mtg., spkr. Ralph Dobbins, Pan Am, on "Commercial Aircraft thru Boeing 747." Jeanne Smart, 595-3086.

Amer. Soc. for Metals: Wed., Jan. 20, 5:30 p.m. cocktails, 6:30 p.m. dinner, 8 p.m. mtg., $5.25 per person dinner, spkr. George Corney, Eastman Kodak, on 'Anal. of the Pieta and Tour of Rome." Ladies Nite. Joel Greenspan, Ext. 7351.

Chess Club: Tues., 5 p.m., Plt. 3 Cafe, tournament, games. Alex Ikonnikow, Ext. 7592.

Coin Club: Wed., 12:05-12:50, Plt. 25 Vendor Conf. Rms. Ken Hale, Ext. 1936.

Duplicate Bridge Club: Thurs., 5:45 p.m., Plt. 3 Cafe, reserv. not required. partnerships arranged. Pete Harrington, Ext. 1812.

Engineeing Mod. Soc.: Tues., Jan. 12, 7 p.m., Plt. 28, Rm. 1, elec. of ofcrs. H. Knoph, Ext. 84094.

Ex-Servicemen's Club: First Mon. of month, 7:30 p.m., Plt. 28 audit., exec. & gen. mtg. Pete Volpe, Ext. 84754.

Fencing Club: Fri., 5 p.m., Plt. 30 Cafe, competitive fenc. & inst. Joe Campisi, Ext. 1134.

GAA Leather Craft Club: First and third Wed. of month, 5-6:30 p.m., Plt. 28 audit., inst. in leathercraft & new ideas & tech. Cy Dotz, Ext. 86828.

Horseback Rid. Club: Every Sun., 11 a.m., By-Ways Stables, Huntington, Eng. rid. lessons avail., Donna Ext. 86214; club meets 1st Thurs. of month, Plt. 28, 5:30 p.m. Caren Carlson, Ext. 2725.

Huntington Toastmasters Club: Mon., Jan. 11, 8 p.m., 1st. fl. Conf. Rm. Allstate Bldg., Melville, N. Y., International, educational & pub. speak. Tom Campbell, Ext. 3158.

Over Forty Club: Mon., Jan. 18, 7:30 p.m., Hearthstone Motor Lodge, Farmingdale, Rte. 109, monthly meet. Frank Mistretta, Ext. 5427.

Research Lecture Series: Thurs., Jan. 14, Conf. Rms. 1A-1B, Plt. 35, spkr. Dr. George Carrier & Gordon McKay, Prof. of Mech. Engg., Harvard Univ., Cambridge, Mass. on "Dynamics of Hurricanes." Ext. 2165.

Ski Club: Wed., Jan. 6. 8:30 p.m., Holiday Manor, Hicksville Rd., Bethpage. Bill Flynn, Ext. 1823.

Soccer Club: Sun., Jan. 3, 12:30 p.m., Reserve team vs Glen Cove, Plt. 3 field, 2:30 p.m., Premier team vs Patchogue, Plt. 3, field League & cup games. Karl Herrnkind, Ext. 84181.

Stamp Club: (Bethpage) First 3 Wed. of month, 5 p.m., Plt. 30 Cafe, swapping, circuit bk. sales, auctions. Marty Harow, Ext. 9172.

Wgt. Watchers Club: Every Tues., 4:45-6:45 p.m., Plt. 28 audit., spkr. Mimi Ackerman, WW lecturer. Lee Badalamenti, Ext. 2171.

OBITUARIES

Plane News has received word that death has come to the Grumman personnel listed below. We extend sincere sympathy to relatives and friends.

CHARLES A. KUPPLER of Small Parts Fabrication, Plant 3, died December 12 at the age of 52. He lived at 258 N. Newbridge Rd., Levittown, and had worked 18 years for Grumman.

JOHN A. LEUDEMANN died December 12. He was 51 years old and had been with Grumman since 1949. He worked in Vehicle Production Engineering, Plant 1, and lived at 554 Pine Acres Blvd., Brightwaters.

DANIEL W. MILNER of Fuselage Assembly, Plant 77, Stuart, died December 13. He was 32 years of age and had worked for the Company since 1966. He lived at 216 S. Savannah Rd., Jensen Beach, Fla.

AUGUST P. GROSS of the Prototype Department, Plant 2, died December 14 at the age of 63. He had been with Grumman more than 27 years, and lived at 71 E. 13th St., Huntington Station.

Up retiree benefits

Grumman retirees last week welcomed an announcement from Clint Towl that their insurance allowances are being increased, beginning January 1. The Chairman of the Board made the announcement at a luncheon meeting of the Grumman Retiree Club on December 16 at Holiday Manor.

Under the new scale, hospital room and board allowance has been boosted from $20/day for 70 days to **full coverage** for 70 days, and the allowance for the next 180 (formerly 120) days has been increased from $10/day to $25/day. The fee for surgery is being upped from $400 to a maximum payment of $550, and a $100 allowance has been added to the insurance plan for diagnostic X-ray and laboratory examinations (not previously covered).

If the retiree has one or more eligible dependents he wishes covered under his group insurance, he will be required to pay an additional monthly amount ($20/month instead of $11.89 if the dependent is not eligible for coverage under Medicare; $2.50/month instead of $1.50 if dependent is eligible for coverage under Medicare).

The group Hospital-Surgical Medical insurance for eligible retired Grumman employees is made available by the Company without charge to the retiree. It is continued for a period of time equal to the number of whole months of active Grumman service credited to the eligible person.

Note to parents

These other insurance notes came out of the Grumman Insurance Office last week:

Parents of 19-year-olds were reminded that the time has come for children born in 1951 to shoulder their own insurance. Blue Cross-Blue Shield coverage for these young people runs out at one minute after midnight, December 31. To transfer them to their own contracts (whatever they have had under the Family contract), parents should fill out the transfer certificates available from Employee Services Offices or the Grumman Insurance Office in Plant 28, Ext. 1040. They have 60 days after December 31 for the conversion, but no more.

Travelers Insurance has a similar ruling for 1970's 19-year-olds, but its deadline is January 31, 1971. The completed insurance application and first payment must be received by The Travelers Insurance Company within 31 days following February 1, 1971. Forms are available from the Grumman Insurance Office or ESO.

Converting within the time limits specified lets the insurance coverage continue without interruption and gives the 19-year-old the benefit of the group, as opposed to an individual, rate.

. . . and to all, a good night!

What, really, is the holiday season? What does it mean?

Questions that only each of us can answer, for spirit and meaning are intangibles locked within us. For some, the season is one of deep religious contemplation and expression, a time of recalling moral truths and acting on them. For others, it is a time for the personal extra-emphasis on renewing friendships and lighting a taller flame of cordiality and empathy. Some view it as a time for family—to be together as one, to loose again the love that brought us all together in the first place.

It can be a time for the young, to delight in their delights, to glow in the reflected warmth of what they are as we remember—perhaps but vaguely—what we were.

There is merriment, too; a yearly period of restoration by stepping back a bit from the weight of the day-by-day routine. It's a release, a time to be thoroughly yourself . . . to relax . . . to enjoy life. . . .

As a matter of fact, there is whatever you want the season to be. But whatever that is, we hope that happiness is a prime ingredient.

And since this is also a time of giving and receiving, we of the Plane News staff want to give you our thanks for helping (and tolerating) us—especially the photographers and artists in Presentations Services and the people in Transportation, Employee Services, Personnel, and many, many others. All of you have been great.

Have a happy.

About the cover

By day, the executive lobby at Plant 5 is bustling with activity. Late at night, however, the single fir tree now bedecked with Christmas lights usually stands a lonely vigil there. It has been a scene that has beckoned many times to Fred Annette of Presentations Services, Plant 5, so much so that he decided to capture it for the cover of the holiday issue of Plane News.

Fred makes a habit of snapping cover photos—he's had more than a few this year.

Car Pool

BKLYN.: Belt Pkwy. to Plt. 30, 35, 8:30-5 p.m. 212 CL 6-0413.

CTRL. JERSEY: Thru S. I., Verazzano Bridge, Belt Pkwy., S. State to Plt. 5 & 25. Nick Gioganos, Ext. 9605.

Wanted

CHEVROLET: '66-'70, 9 pass. sta. wag., low mi., good cond. only. 226-4076.

TRAINS: Lionel std. & pre-war 'O' gauge. 543-4035.

MISC.: Lawn vac., gas eng., hose attach., use as mulcher or blower, under $75; leaf shredder/mulcher, gas driven reason., tps. $50. 264-6963.

FILM: Std. 8mm sound, 'The Mummy" w/Boris Karloff, buy or trade. IV 9-1431 evgs.

WHLS.: 2 for '69, V-8 Mustang, 5 hole stud. LO

WHLS.: 2 for '69, V-8 Mustang, 5 hole stud. LO

VAN: '61-'65, wind. all around pref., around $250. JU 7-5123.

SERV. MANUAL: '65 Saab. Al Loeffler, Ext. 2226.

ENCYCLO. BRIT.: Late '60s ed. 643-6582.

MEMBERS: Interested in Mahler-Bruckner music? If you would like to form a group, contract Stuart Wood. 541-8382.

MISC.: Used lawn vacuum leaf clean., gas driven w/attach., reason; leaf shredder/mulcher, gas driven. 265-6963.

For Rent

APT.: Smithtown, furn., 3 rms. & bath, pvt. ent., air cond., housekeep. & linens, util. incl., $195/mo. 269-1819.

ROOM: N. Massapequa, 4 mi. Grumman, furn., linens & desk, nr. shops, main transport., library, gent. pref. MY 4-5814.

ROOM: Farmingdale, w/o board, breakfast priv., bus. woman, $17/wk. 785-8229.

ROOM: Furn., pvt. ent. & bath. MY 4-2059, after 4 p.m.

ROOM: Farmingdale, pvt. home, furn. or unfurn., nr. Grumman, fem. only. 293-4760, after 6.

ROOM: 2 mi. to plts., pvt. ent., kit. priv., gent., $25/wk. PY 6-4210.

Lost

TIE-PIN: Bear. O'Shea coat of arms w/name, family keepsake, from kings of Long Ireland, reward: one shilling or a sprig of shamrock come next Paddy's day. Tim Shea, Ext. 2068.

For Sale

PROPERTY: Flanders, 16, 20x100 lots, wood., ½ mi. Peconic Bay, pvt. bch. & boat., elec., tele., & rd. access, $400/per. LT 9-6203.

TRAINS: Lionel 027 gauge, some very old. 484-0065, after 5.

SEW. MACH.: Singer, w/attach, $30. 421-5998.

LOTS: E. Qoogue, 18, nr. Montauk Hwy. MO 5-1877.

TIRES: Mtd. snows, 6.85x15, fits '61 Pontiac Tempest. 799-5522.

MISC.: Parts, '62-'63 Ford Falcon; 1 set Lionel trains, tracks, 2 trans., $25; Firestone tire, 7:10x 15x6 ply, $15. 732-1950.

WATCH: Zodiac Sea Wolf, new auto., self wind., shock & water proof, calendar skin div. depth 600 ft. $80. 981-0123.

MISC.: Bell & Howell, self thread., mod. 256, 8mm, movie proj., $50; B&H 8mm movie camera, $20, both 3 yrs. 543-6378, after 5:30.

PLYMOUTH: '69 GTX, 440-375 eng., 410 posi, low mi., xtras, $1,900. TO 8-3114.

FORD: '65, 10 pass. Country Squire, auto., pwr. steer., R&H, tint. gl., $750. 799-0359.

DODGE: '68 Coronet 500, orig. owner, 2-dr. hdtp., red/blk. vinyl tp., bkts., 235 hp, V-8, reg. gas, auto., pwr. steer., R&H, 2 new stud. snows & ext. rims, $1,500. PE 5-4161.

MALIBU: '67, 2-dr. hdtp., 327 c.i., duals, 4-blt. tires, std., $1,390. 842-0568.

CRUIS. SKIFF: '54 cust. 31 ft. Isaacson, twin Nordbergs, slps. 3, galley, hd., lrg. chain locker, depth sound., fisr wells, 3 anchors, line, preservers, Lovett bilge pump, man. bilge pump, broad-beam, deep-keel hull, $3,000. 727-5185, after 6.

PIANO: 4 ft. 8 in Brambach baby grand, $550. 484-1272.

MISC.: 3 pc. ect., 2 club chrs., 2 end tbls., 1 round cocktail tbl, ask. $325, will sell sep. MO 9-4877.

For Sale

OFC. EQUIP.: Olympia man. typewriter, pica, incl. typ. tbl., $75; A. B. Dick mimeograph, mod. 437, elec., $125; Thermofax copier, secy. mod., rec. o'haul, $85. 593-8311, evgs.

BOAT: '60, 18 ft. Shoup Princess, '66, 50 hp Merc. outbd., fully equip., $1,250. PY 8-6382.

PONTIAC: '69 Firebird 350, auto., pwr. steer., disc bks., cons., bkts., wide ovals, $2,295. HA 7-5969.

VW: '66 Fastback, 41,000 mi., radio, snows, $950. 921-3076.

MOTOR SCOOTER: Lambretta, 150cc, buddy set, $85. OR 1-1297.

TIRES: 5 w/w, 8:55x14 mtd. on Olds rims, $25. GE 3-8754.

SURFBD.: 8 ft. 3 in. Hannon, wide, gd. for begin, $50. 221-5354.

SEW. MACH.: Straight stitch cons., $25. 751-1256.

SEW. MACH.: Sew-mor, straight stitch, buttonhole attach., w/cab., $40. 862-9074.

RECEIVER: Short wave, National, NC 100, 5 bands, incl. metal encased Hammarlund spkrs., $75. 483-2154.

GUITAR AMP.: 70w, 4 inputs, trem., 2, 12 in. Jensen spkrs., 3x2 standby, blk. lea., $75. 798-9450.

WORK BOAT: 26 ft., 9 ft. beam, 110 hp diesel, recent. o'haul, in water, $1,000. 22 ES 3-0693.

MISC.: Hook & ladder fire trk.; comb. baby sled and cart, both $10. 261-3802.

For Sale

MISC.: 2 burner boat stove, $14; 22 ga. nylon 66 rifle bag & clean. kit, $35; maple twin bd., $20; 10 lb. Norge wash., $50; lrg. rotisserie, $20. IV 9-7324, after 5:30.

COUGAR: '69, fully equip. air, w/w, new tires, AM radio, deluxe int., cons., blue w/wh. vinyl tp., 18,000 mi. 483-0743.

DODGE: '65 Dart GT, 6 cyl., auto., bkt. seats, R&H, drk. red, $495. 751-1693.

BUICK: '66 cust. Electra, 4-dr. hdtp., full pwr., air, FM stereo, $1,650. 681-9588.

MISC.: '68 Chevy Impala sta. wag., R&H, 9 pass., 2 new snows, $1,800; stain. steel hot dog std. w/propane gas dispenser and trlr., $450. MY 4-4581.

PUPPIES: St. Bernard, AKC, champ lineage, bred for temperment & mark., avail now, $150 & up. 584-5952.

MISC.: Clarinet, Selmer #9 w/case, $175; trumpet, OSDS spec. L-10 w/case, $110. WE 5-0885, after 6.

DBRM. SET: Cushman early Amer. chest on chest, dress. & mirror, dbl. bd. & ngt. tbl., $300. RA 8-0016.

STEREO AM P.: 30W Lafayette mahog. wood cab., $30. 485-3835.

WASH. MACH.: Hoover port., 1 yr., $85. 212 445-2849.

ROAD RUNNER: '68, 426 Hemi, $2,000. 265-4064, after 66.

at your SERVICE

This is a free service to Grumman personnel for non-commercial advertisements, accepted on a first-come, first-served basis. Classified advertisements are carried in PLANE NEWS only on the basis that everyone replying to such advertising will receive fair and equal consideration regardless of their race, creed, color, or national origin.
Type or print ad on form available at Employee Services and Engineering counters, and send via interplant mail to PLANE NEWS, Plant 5, Bethpage. List home phone (with area code if outside Nassau or Suffolk). Limit: one ad per person per issue. No item under $10, no firearms or ammunition.

LAB. RETRIEVER: Blk., fem., 2 mo., AKC, all papers. 751-6832.

MISC.: Crib w/matt., best offer; Delmonico 9 cu. ft. refrig., 2½ yrs., nds. labor, warr. for parts still effect., best offer; 1 pr. gil's sz. 6 oller rink skates, Reidel boot, best offer; 1 pr. Reidel skate boots, sz. 6, best offer. 735-7345.

BUICK: '64 LeSabre, 4-dr. sed., 300 c.i., 8 cyl., 2 bbl. carb., 210 hp, $600. 922-3540.

DODGE: '69 Charger RT, vinyl roof, pwr. steer. & disc bks., $2,450. 724-3711.

PONTIAC: '60 Catalina, 4-dr., auto., R&H, $195. 671-0517.

TIRES: 2 snows, 6.50x13, w/w, Sears fbgl., mtd. on Corvair whls., bal. used 1 season. $30/pr. Sol Graff, Ext. 84835.

DRUM SET: Tempo bass, brown marble swirl & ft. ped., snare w/std., red sparkle, fl. tom-tom, wh. marble, red sparkle tom-tom, cym., crash, sizzler, sticks, pad, drum key, ride cym., hi-hat w/std., $100. LI 1-1431.

MISC.: Fold. crib & play pen comb. w/matt., $15; wig, human hair, nev. worn, ash blond, $10. 751-3544.

KIT. CAB.: Sprayed wh.; formica counter tp., wh. & gold; sink & sink cab.; 36 in. gas stove, wh., cov. 15 in. wall space, $150/all. PI 6-7974.

POODLES: Mini, choc. & blks., 6 wks., 2 males, 5 fem., $85. 785-1628.

ESTEY ORGAN: $95. PY 6-9634.

TRAINS: HO gauge w/access., illum. bd. w/village, sch., stores, houses, etc., $35. JU 1-6388, after 5.

EXH. FAN: Pnused 10 in. 724-2709.

SKI BOOTS: German made, lady's sz. 5, $25. 864-7577.

AMPLIFIER: Univox, 3 inputs, vol., tone, trem., 12 in. Jensen spkr., $39. OV 1-1247.

MISC.: Maple secry. & desk, $75; 9x12 hooked rug, $50; new bowling ball, undrill. 16 lbs., $15. CH 9-9344.

DIN. SET: Formica tp. tbl., wrought iron, 4 chrs., ask. $45. WE 5-6092, after 5.

COMARO: '69, blue, astrovent., new tires. 549-3041.

CHEVROLET: '59, sed., auto., 8 cyl., $100. 541-5854.

PONTIAC: '60, 4-dr. sed., pwr. steer., 47,000 orig. mi., new muff., 2 mtd. snows, $125. 681-0243, after 5.

BOAT: '69, 16 ft. Wellcraft fbgl., tri-hull, 50 hp Merc. w/elec. start., trlr. & xtras, $1,400. 981-0865.

SAILBOAT: 16 ft. Long Islander, $300. 212 882-7888, evgs.

CAB.: Stereo equip., 40x31x20, deep wal., slid. drs., record stor., record play. & tape dwrs., comp. shelves, $50. OV 1-4249.

LEA. PANTS: Harley Dividson, blk., sz. 34, $25. 587-8323.

GAS RANGE: Bilt-rite, wall type, $75. AN 5-6139, after 6.

BIKE: Boy's Schwinn Stingray, 5-spd., 2 bks., front & rear spgs., $55. 549-4705, after 6:30 p.m.

PUPPIES: Labrador, AKC, male & fem., rdy. wk. of 12/23, $85-$100. 757-1395.

LE MANS: '66 hdtp., V-8, std., $625. 483-6675.

COAT: Fully let-out mink-dyed muskrat, full lngth., sz. 12-14, reason. 538-3829.

ELEC. ORGAN: Port. w/bass amp., ask. $275. 433-5904.

FORD: '68 Galaxie, 4-dr. hdtp., V-8, auto., pwr. steer., 28,000 mi., $1575. 822-3107, bet. 10-4 p.m.

PROPERTY: Sullivan County, 20 acres, water, will divide, pvt. rd. 261-9132.

MISC.: Flip-up shield for helmet; 1 pr. blk. lea. pants, H-D brand, sz. 34, both $30. 587-8323.

MISC.: 3 pc. sect. sofa, cust. zipper covers, $40; lrg. liv. rm. chr. w/cover. 981-0155, after 6.

MISC.: 2 tbl. lamps comp. w/shades & ⅜ in plate gl. tbls.; lrg. end tbl. w/ ⅜ in. plate gl., planter on btm., all match., $15/ea. 293-7245.

PIANO: Blond spinet, w/bench. 931-5307.

MISC.: Baby carr. & matt., crib w/matt., play pen & matt., car bd. & matt., walker, swingomatic, dolls, toys, etc., all or part. 543-5443.

For Sale

ACCORDION: Ferrari, blk. w/case, 120 bass, 1 yr., elec., $125 WE 5-3148.

MISC.: Harman Kardon TA 5000X AM/FM stereo receiver, $150; Garrard 4HF prof. type turntbl., Pickering cart., cust. wal. base, $65. 692-4040.

CORVETTE: '66 coupe, 427 c.i., 390 hp, 4-spd. w/Hurst. hdrs., posi, mags, wide ovals, transistor ign., Schiefer clutch, AM/FM, 38,000 mi., ask. $2,600. 427-1239, after 5.

BUICK: '68 LeSabre, pwr. steer. & bks., vinyl tp. & int., tan, $2,100. Bren Schuierer, Ext. 6418.

MUSTANG: '65, 289 c.i., 4-spd., 4-bbl. carb., alarm, reason. 277-0212.

T-BIRD: '66 Landau, nds. front end work, have most parts, $550 as is. LT 9-6376, after 6.

WHLS.: 3, for Olds. 14 in. tires w/valves, best offer. OV 1-7391.

BOAT: '58 Trojan, 21 ft. cab., 110 hp Graymarine inbd., slps. 4, hd., newly sanded, caulk., paint. & varnished, in water, $1,000. MO 7-5190.

BOAT LUMBER: 22 ft. mast airfoil sect. hollow Sitka spruce, integral 1/16 in. stainless Halliards, sheaves, never used, $50; 2, 22 ft. Sitka spruce 2x4s, $12/ea. 543-4035, after 6.

MISC.: Revere camera w/lea. case, cartridge load, telescopic & wide angle lens, Dejur 8MM projector w/splicer, $70. 334-1409.

MISC.: Schnauzer pup, AKC, trained, $100; maple bd., $15; test tube centrifuge, $10; Busch-Pressman 2¼x3¼ camera kit, $65; 16mm Keystone projector, $15; 2 piston motor anesthesia pump, $15; genuine opal, $20. 584-7540.

POODLES: for show, breed. or pet, groomed & ornamented, rdy. for Xmas. WE 5-2083, evgs.

PUPPIES: Poodle, blks. & silvers, male & fem. $75. FL 2-8302.

OLDSMOBILE: '69, "98" sed., vinyl roof, AM/FM stereo, air cond., all elec. pwr., 18,700 mi., 4-dr. hdtp. 938-1832.

PONTIAC: '63, 4-dr. Catalina, auto., pwr. steer. & bks., xtras, $450. OV 1-4249.

SAAB: '65, radio w/2 spkrs. & heat., xtras. 271-1661 to 10 p.m.

CHEVY: '65 Impala, 2-dr. hdtp., V-8, auto., pwr. steer., R&H, $850. 798-1753.

ENG.: '62 VW, rebit., install., $150. 273-6239.

SHOCK ABSORBERS: 2 new Monroe-matic, #2032, $10. 588-6364.

TIRES: 2 snows, 7.35x14 w/w, 4 ply, 1 yr., holes for studs, $15. 921-4262.

TIRES: 2 snows, Allstate stud., 6.95x14 on Mustang rims, used 2 season, $35. 538-7431.

CORVETTES: '61 Corvette conv., blue w/wh. inert, blk. softop, 283 c.i., 230 hp, 4-spd., 4:11-1 rear, R&H, orig. owner, $1,000; '65 Corvette conv., blue, 2 tps., 396 c.i., 425 hp, 4-spd., AM/FM, steel radial tires, disc bks., $2,300. 742-1695, after 6.

WHLS.: 2, VW, 5 hole bolt pattern, $10. Peter Gauthier, Ext. 7341.

CHEVY: '65 Impala 2-dr. hdtp., pwr. steer., w/w, xtra pr. of rims, auto, blue, ask. $775. 864-7165.

SKIS: Hd. 360, w/marker, Rotamat bind., 200cm lg., $100. LO 1-8271.

POOL TBL.: 4 cue sticks, balls, rack cov., brush incl., $150. HA 1-0124.

PUPPIES: Beagle, 4 male, 2 fem., shots, $15/ea. TU 4-7310.

MISC.: Chain link gates comp. 56x39, 1 ea., 2 main gate posts, 27 ft. of 1¼ pipe, 25¼ ft. of chain link fence, all parts incl., $30. 799-5854, after 12 p.m.

CHEVROLET: '62 Impala, nds. work, $200. 472-3899, after 6.

JAGUAR: '60 Mark 9, $750. 731-8573.

CHEVELLE: '68, 2-dr. Malibu, pwr. glide, blk. vinyl tp., pushbtn. radio, rear spkr. & antenna, posi., rear defrost, new w/w & rear bumper guards, $1,695. SU 5-1038.

BUICK: '66 cust. Electra 4-dr. hdtp., air cond., FM stereo, full pwr., orig. owner, xtras, $1,650. 681-9588.

TIRE: Goodyear Speedway wide tread E70-14 w/w, $12. 234-6378.

TIRES: Used, 815x15 BF Goodrich Silvertone; 845x15 Firestone Deluxe champ retread. PE 1-7406.

MISC.: 2, 8:55x14 stud. snows mtd. on Merc. whls., low mi., $40/pr.; new Mobil batt., $30. 212 BA 4!1864, after 6:30.

HOUSE: Oyster Bay, 3 bdrm. brick split, fam. rm., 2½ bath, 2 car gar. w/auto. drs., full tiled bsmt., alum s-s, o.h.w., 2 zone, blt.-in fire alarm, attic fan, 5 appli., xtras, 4¾% mtge., $49,000. WA 2-3860.

Test team does quick-time while completing successful trial series on F-14 escape system

At the China Lake Naval Weapons Center on the Mojave Desert, the F-14 Crew Escape & Ejection Systems Test team from Bethpage and Calverton threw themselves into efficient completion of their F-14 test program, with first flight depending on its success.

Using instrumented dummies in an F-14 cockpit mockup mounted on a rocket-propelled sled, they chalked up a whole series of ejection conditions, from zero altitude/zero velocity to 600 knots. The F-14 crew (pilot and mission control officer) are now assured that the aircraft escape system works.

Test Conductor Tom Klemenko of Subsystem Test was quick to share credit: "The design people back home gave us a system that worked, and the manufacturing people built it that way," he declared, emphasizing that his test team at China Lake represented test, design, and instrumentation engineers, pyro, hydraulic, instrumentation, seat, and structural technicians, and Quality Control.

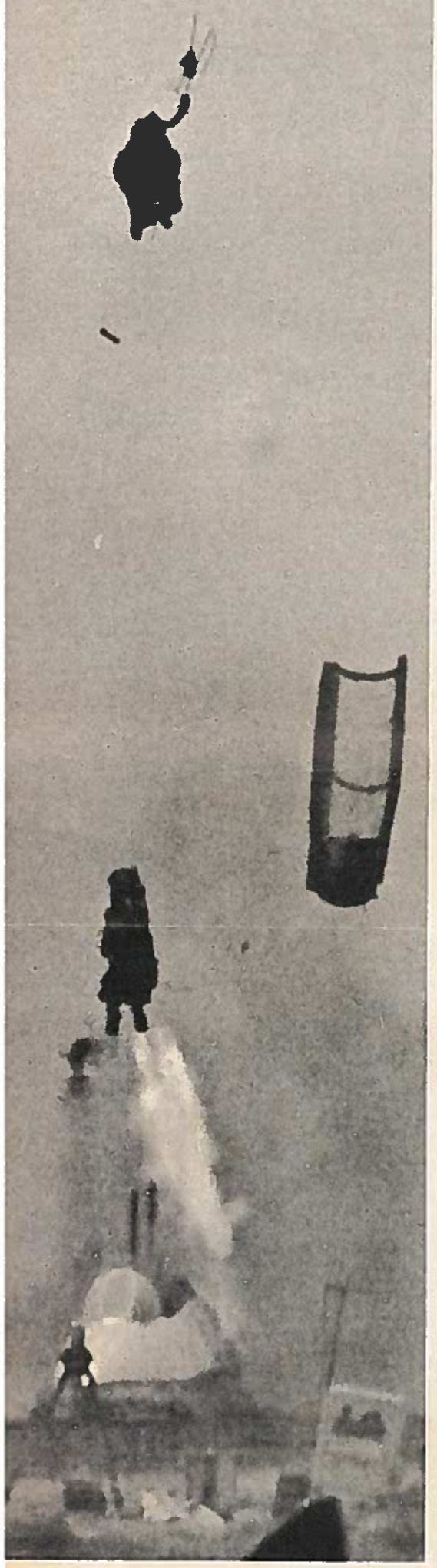
New system

The system, proved at the Calverton test runs in August, is the first that Grumman has used with a canopy lock severance system, and the first with zero/zero capability. The canopy and Martin-Baker seats are ejected, in sequence, so as not to collide; an underseat rocket gives additional boost, and a parachute system slows the fall to earth.

Klemenko's group began to arrive at China Lake September 17. They left December 4, having run not only the F-14 ejection series but two full-system high velocity escape system tests on A-6A sled. (The A-6A is being retrofitted with the same zero/zero capability as the F-14).

The F-14 program included five high-speed runs: a 600 KEAS (knots equivalent air speed) drag run, with no ejection; 100, 265, 435, and a 600 KEAS run, all full-system test: one zero/zero MCO ejection and a zero/zero system test with MCO.

"Everything moved along so well at China Lake, that the testing was completed between September 17 and December 1," says Klemenko. "This turned out to be 60 days ahead of the schedule proposed in the original F-14 contract plan, and resulted in the completion of the full system demonstration."



'Hearty thanks'

Earlier this month, President Lew Evans received the following letter from Capt. D. R. Vaughn, commanding officer of the United States Coast Guard Station at Floyd Bennett Field in Brooklyn.

December 2, 1970

Dear Sir:

I wish to take this opportunity to personally extend my hearty thanks and appreciation to the personnel of your Peconic facility who so ably assisted aircraft from this command on the morning of November 24, 1970.

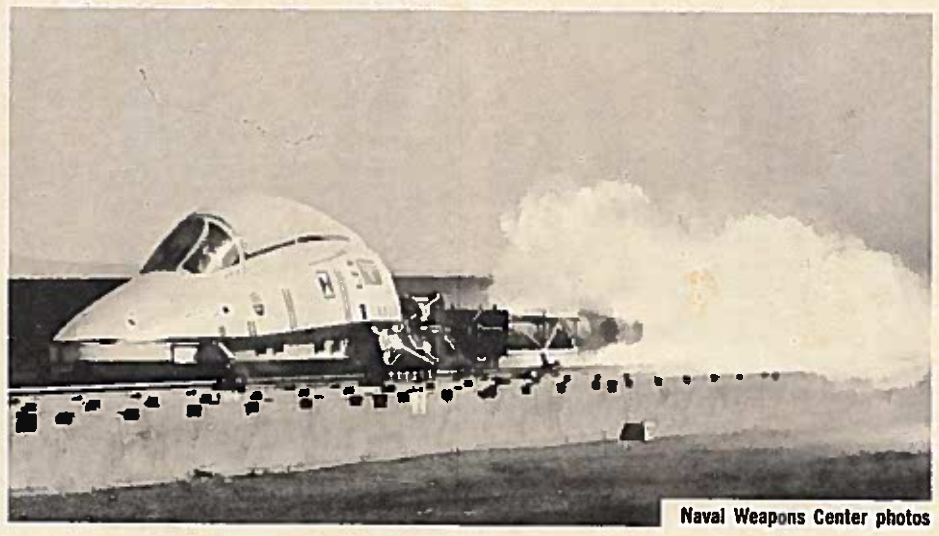
On November 23, 1970, the United States Coast Guard was engaged in a search effort attempting to locate the cabin cruiser LUCKY M, reported overdue with three persons on board. Three Group Commands, two patrol boats, several utility boats and aircraft from this unit were involved in the search. As the search progressed into the late evening one of the Coast Guard 40-foot utility boats foundered, casting her three crew members into the chilling waters of Long Island Sound. Within minutes an aircraft from this unit was on scene, but was unable to immediately locate the survivors. Due to the severity of the air and water temperatures additional aircraft were dispatched to assist.

As the search progressed, with little or no success, it became evident that the aircraft would require fuel; however, the round trip distance from the search area to the Coast Guard Air Station would involve an hour and a half to two hours of flight time, which, under the circumstances was unacceptable. A call was placed by the Air Station Duty Officer to your Peconic facility and the situation explained to the supervisor. The Duty Officer was advised that fuel would be made available to the aircraft upon arrival and at 1:45 a.m., November 24, HH3F CGNR 1478 landed, followed in twenty minutes by HH52A CGNR 1357. After servicing, both aircraft returned to the search area. At 6:27 a.m., the survivors were located clinging to a raft in the surf and were rescued.

Although suffering from exposure all three Coast Guardsmen were alive and were transported to medical facilities for treatment. With this portion of the search over, attention was once again turned to the LUCKY M, which was located at 9:27 a.m. with all persons safe on board.

Once again may I offer my thanks to your personnel for their kind and swift assistance.

Sincerely yours,
/s/ D. R. VAUGHN
Captain, U.S. Coast Guard
Commanding Officer



Naval Weapons Center photos